

Please amend the paragraphs of the specification at column 2, lines 19-27 to read as follows:

It is the primary aim of the present invention to provide [a vertebral] an intervertebral disc endoprosthesis which will perform effectively and efficiently within a patient's spine over a long period of time, and which will not encourage degeneration of or cause damage to adjacent natural disc parts.

It is a related objective to provide a new [vertebral] intervertebral disc endoprosthesis surgical procedure which will decrease post-operative recovery time and inhibit post-operative disc, vertebral body and spinal joint degeneration.

Please amend the paragraph of the specification at column 2, lines 37-39 as follows:

Still another object is to provide [a vertebral] an intervertebral disc endoprosthesis having a resilient element to accommodate shocks and other forces applied to the spine.

Please amend the paragraph of the specification beginning at column 3, line 56 and ending at column 4, line 9 to read as follows:

Turning more specifically to FIGS. 1-3, a portion of a human spine 10 is shown. The illustrated spine 10 has been subjected to a discectomy surgical process. To discourage degeneration of or damage to the natural vertebral bodies 12 and 14 and their respective facet joints, in accordance with the invention, [a vertebral] an intervertebral disc endoprosthesis 18 is affixed between the adjacent natural vertebral bodies 12 and 14. Here this [vertebral] intervertebral disc endoprosthesis 18 comprises a resilient disc body 20 having a relatively stiff annular gasket exterior

portion 22 and a relatively supple nuclear central portion 24. The annular gasket 22 can be formed from a suitable biocompatible elastomer in the range of approximately 70-90 durometer hardness and the nuclear central portion 24 can be formed from a softer biocompatible elastomeric polymer of approximately 30 durometer hardness. In an alternate embodiment, the gasket 22 can extend over and under the nuclear central portion 24 so as to fully enclose it within a thin layer. In a further embodiment, the nuclear central portion, the gasket, and the thin layer extension are molded together to form one piece having different durometer hardnesses.

Please amend the paragraph of the specification beginning at column 7, line 64 and ending at column 8, line 18, as indicated below:

To accurately locate the concaval-convex surfaces in the patient's spine, holes 382A, 384A (FIG. 3) are precisely located and then formed in the bone structure using a measuring instrument centered in the evacuated natural [intravertebral] intervertebral disc space. These holes are then tapped to form female threads therein. When the threads have been formed, the anchors 102, 104 are implanted in the respective tapped holes, thereby creating an imaginary platform of reference points located precisely with respect to the patient's spine. After the holes have been formed and the anchors 102, 104 implanted, a bone surface milling jig (not shown) is affixed to the anchors 102, 104 and the desired concave surfaces of predetermined shape are formed on the inferior and superior surfaces of the opposing vertebral bodies using one of a selection of predetermined milling head or bit sizes. Thereafter, the bone milling jig is removed and the concaval-convex elements 52, 54 identical in shape to the milled surfaces 112, 114 are inserted between the distracted milled vertebral